

# DATAVS2



The DataVS2 vision sensor series presents all the characteristics to solve machine vision applications in a flexible and intuitive way.

DataVS2 is a completely embedded device: the optic, the LED illuminator and the electronics are included in an extremely compact housing. The sensor is configured via PC through Ethernet communication. The configuration software is supplied with the product and it has been developed in order to lead the customer through the configuration process step by step.

DataVS2 is available in four different versions according to the installed control tools: Object Recognition (OBJ), Advanced Object Recognition (AOR), Identification (ID) and Professional (PRO).

Many different control typologies are available: brightness, contrast, position, width, count, pattern match, contour match, 360° pattern match, barcode and datamatrix reader, OCV, 360° contour match & counter, 360° defect finder.

## HIGHLIGHTS

- Flexible and intuitive setup via PC through Ethernet
- Memorisation of 20 inspections
- 14 different controls
- 360° Contour Match for Professional models
- Logical operators: AND, OR, NOT, NAND, NOR, ecc.
- TURBO mode to double elaboration speed
- VSM compatibility
- Inspection & Identification functionalities together available on Professional models

## APPLICATION

**DataVS2** is ideal for the control of text presence in overprinting, product completeness before packaging, logo position on cosmetic bottles, correct stamp on post envelopes, liquid level inside a plastic bottle, correct product orientation on a conveyor belt, barcode and datamatrix reading.

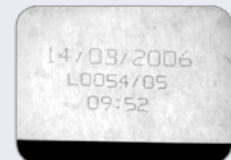
Stamp control



Part orientation



Overprinting



Level control



Logo control



Barcode & Datamatrix

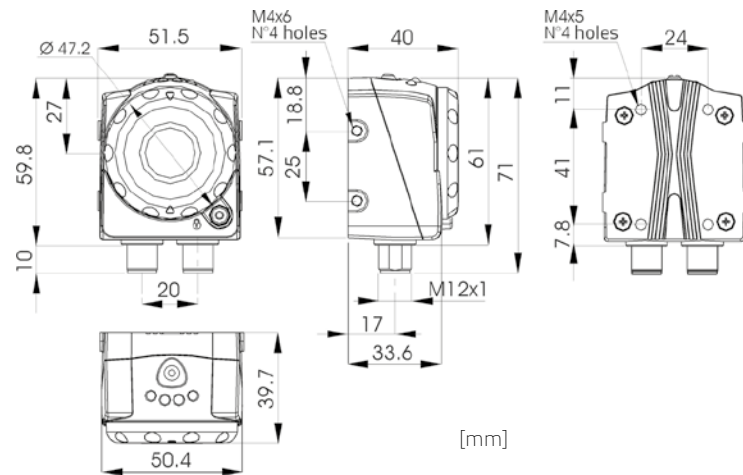


# DIMENSIONS



The extremely compact size of the DATAVS sensors is not an obstacle for the full integration of all the elements for a reliable image-based control.

- Compact housing
- Red or Infrared LED illuminator
- Selectable lenses
- Focus knob
- Standard M12 connectors
- Ethernet communication
- 3+1 PNP outputs
- 4 signalling LEDs: output1, output2, power supply, communication
- Teach push-button
- 640x480 pixel greyscale CMOS image sensor



# INDICATORS AND SETTINGS

Teach push-button with double function:

- reference image update
- recovery mode

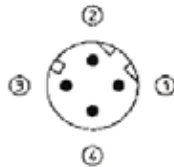


- A** Power supply, green
- B** Digital output 1, orange
- C** Digital output 2, orange
- D** Network connection, green

# CONNECTIONS



M12 4-pole Ethernet



- 1 = white/orange = RX+
- 2 = white/green = TX+
- 3 = orange = RX-
- 4 = green = TX-

M12 8-pole (power supply and I/O)



**OBJ and AOR models**

- 1 = white = digital input 1
- 2 = brown = 24 Vdc
- 3 = green = configurable output
- 4 = yellow = output 1
- 5 = grey = output 2
- 6 = pink = output 3
- 7 = blue = GND
- 8 = red = external trigger

**ID and PRO models**

- 1 = white = RS232 RX
- 2 = brown = 24 Vdc
- 3 = green = configurable output
- 4 = yellow = output 1
- 5 = grey = output 2
- 6 = pink = RS232 TX
- 7 = blue = GND
- 8 = red = external trigger

# TECHNICAL DATA

<b>Power supply:</b>	24 Vdc $\pm$ 10 %
<b>Ripple:</b>	1 Vpp max with illuminator 2 Vpp without illuminator
<b>Consumption:</b>	100 mA at 24 Vdc (without illuminator)
<b>Output type:</b>	3+1 PNP
<b>Output current:</b>	100 mA max
<b>Saturation voltage:</b>	< 2 V
<b>Network interface:</b>	M12 4-pole Ethernet 10/100 Mbs
<b>Serial interface:</b>	RS232 (only ID and PRO models)
<b>External illuminator interface:</b>	Strobe signal (24 V PNP N.O.)
<b>Frame rate:</b>	60 fps
<b>Optics:</b>	integrated (6 mm / 8 mm / 12 mm / 16 mm)
<b>Illuminator:</b>	Red or Infrared
<b>Setting:</b>	TEACH push-button
<b>Indicators:</b>	4 LED
<b>Connections:</b>	M12 8 pole A-code M12 4 pole D-code
<b>Mechanical protection:</b>	IP50
<b>Protection devices:</b>	A, B
<b>Housing material:</b>	aluminium alloy / ABS
<b>Weight:</b>	125 g
<b>Operating temperature:</b>	-10 ... +50°C
<b>Storage temperature:</b>	-25 ... +70°C



## FIELD OF VIEW

OPERATING DISTANCE (MM)	FIELD OF VIEW (WIDTH X HEIGHT) IN MM			
	DATAVS2-06-XX-XXX	DATAVS2-08-XX-XXX	DATAVS2-12-XX-XXX	DATAVS2-16-XX-XXX
50	42 x 30	25 x 20	17 x 12	-
80	60 x 41	40 x 30	25 x 20	-
110	80 x 55	55 x 40	33 x 25	-
140	98 x 69	70 x 50	45 x 35	31 x 24
170	118 x 83	85 x 60	53 x 38	39 x 29
200	138 x 92	100 x 70	60 x 50	46 x 34
300	201 x 140	145 x 103	90 x 65	70 x 53
400	265 x 189	186 x 132	121 x 82	94 x 71
500	330 x 232	236 x 167	150 x 110	118 x 89
600	385 x 270	282 x 232	185 x 130	143 x 107

